

Via Electronic and Certified Mail

August 20, 2014

Mr. Stephen Tzhone, Superfund Remedial Project Manager Superfund AR/LA Enforcement Section (6SF-RA) U.S. Environmental Protection Agency 1445 Ross Avenue Dallas, Texas 75202

Subject: Monthly Progress Report – July 2014 Arkwood, Inc. Site, Omaha, Arkansas

Dear Mr. Tzhone:

Pursuant to Section IX (B) of the corrected Consent Decree in this matter, the following letter report is Millbrook Distribution Services' (MMI) monthly progress report.

I. CURRENT ACTIVITIES

The following is a general description of Work (as defined in the Consent Decree) activities commenced or completed during this reporting period:

During July, we operated the main treatment system, collected operational samples and conducted Site maintenance activities. In addition to collecting samples for laboratory analysis of pentachlorophenol, field samples were collected to measure pH, temperature and dissolved oxygen. Water samples were collected on July 9, 2014. The analytical data was forwarded electronically to you and Mr. Mark Moix of the ADEQ at an earlier date and is also attached to this report. A summary of the data is attached for reference. Samples at the spring mouth and weir will continue to be collected once per month until a reduction in frequency is approved by the agency.

Since a Corrected Deed Notice and Restrictions for the Arkwood Site was recorded by Mr. Bud Grisham on May 29, 2014 reducing the restricted area from 30 acres to 18 acres, the placement of the eastern fence will be relocated to be consistent with the boundary of the 18-acre parcel. A cable has been temporarily installed across this boundary. Fencing is scheduled to be installed in October 2014, the earliest date available for the contractor.

Comments on the Revised Conceptual Site Model (CSM) and Supplemental Groundwater Tracing Study Work Plan (Tracing Study Plan) were received from the USEPA on July 18,

2014. A final CSM and Tracing Study Plan, along with a Sampling and Analysis Plan are due to be submitted on August 29, 2014.

II. PROJECT DATA Attached.

III. PROJECTED ACTIVITIES

<u>August</u>: MMI plans to continue ongoing operations and Site maintenance activities. Responses to the USEPA comments on the revised CSM and Tracing Study Plan, along with the Sampling and Analysis Plan will be submitted by August 29, 2014.

<u>September</u>: MMI plans to continue ongoing operations and Site maintenance activities. Upon approval of the Sampling and Analysis Plan and Tracing Study Plan, scheduling and implementation of the work will commence.

October: MMI plans to continue ongoing operations and Site maintenance activities

IV. PROBLEMS ENCOUNTERED OR ANTICIPATED None.

I certify that the information contained in or accompanying this submission is true, accurate, and complete to the best of my knowledge, information and belief, and that I, as project coordinator, have made reasonable inquiry into its veracity.

If you have any questions regarding this monthly progress report, please do not hesitate to contact me at (608) 848-4134.

Sincerely,

Jean A. Mescher, Project Coordinator Director, Environmental Services

Enclosure

Copy:

- Mark Moix, ADEQ
- EPA Assistant Regional Counsel (6C-WA) (w/o enclosure)
- Chief, Superfund Enforcement Branch (6H-E) (w/o enclosure)



11701 I-30 Bldg 1, Ste 115 - Little Rock, AR 72209 501-455-3233 Fax 501-455-6118

18 July 2014

Jim Fleer
Oxford Environmental & Safety, Inc
14348 Nieman Rd.
Overland Park, KS 66221

RE: Arkwood Monthly Sampling

SDG Number: 1407146

Enclosed are the results of analyses for samples received by the laboratory on 11-Jul-14 09:35. If you have any questions concerning this report, please feel free to contact me.

Sample Receipt Information:

Custody Seals	~
Containers Correct	
COC/Labels Agree	
Received On Ice	
Temperature on Pecaint	2 0°C

Morma James / Jeresa Coins

Sincerely,

Norma James

President

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18 July 2014

Jim Fleer Oxford Environmental & Safety, Inc. 14348 Nieman Rd. Overland Park, KS 66221

Project: Arkwood Monthly Sampling

Date Received: 11-Jul-14 09:35



1407146-01 Lab Number: Sample Name: Mouth Date/Time Collected: 7/9/14 17:50 Water Sample Matrix: **Semivolatiles** <u>Units</u> Result Date/Time Analyzed Batch Method Qualifier(s) 8270D, Rev 4, 2007 Pentachlorophenol ug/L 87.1 7/15/14 12:08 A407184 8270D, Rev 4, 2007 2,4,6-Tribromophenol [surr] % 122 7/15/14 12:08 A407184 8270D, Rev 4, 2007 2-Fluorophenol [surr] % 64.6 7/15/14 12:08 A407184 Phenol-d5 [surr] % 45.7 7/15/14 12:08 A407184 8270D, Rev 4, 2007 **ANALYTICAL RESULTS**

Lab Number:	1407146-02
Sample Name:	Weir
Date/Time Collected:	7/9/14 17:35
Sample Matrix:	Water

<u>Semivolatiles</u>	<u>Units</u>	<u>Result</u>	Qualifier(s)	Date/Time Analyzed	<u>Batch</u>	<u>Method</u>
Pentachlorophenol	ug/L	< 1.00		7/15/14 12:30	A407184	8270D, Rev 4, 2007
2,4,6-Tribromophenol [surr]	%	83.4		7/15/14 12:30	A407184	8270D, Rev 4, 2007
2-Fluorophenol [surr]	%	34.0		7/15/14 12:30	A407184	8270D, Rev 4, 2007
Phenol-d5 [surr]	%	31.7		7/15/14 12:30	A407184	8270D, Rev 4, 2007

Arkansas Analytica

18 July 2014

Jim Fleer
Oxford Environmental & Safety, Inc
14348 Nieman Rd.
Overland Park, KS 66221
Project: Arkwood Monthly Sampling

Project: Arkwood Monthly Sampling



Date Received: 11-Jul-14 09:35

QUALITY CONTROL RESULTS

Semivolatiles - Quality Control Analyzed: 15-Jul-14 13:10 By: TB										
		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC_	Limits	RPD	Limit	Notes
Batch A407184 - 3510C Modified										
Blank (A407184-BLK1)				Prepared 8	& Analyzed:	: 15-Jul-14				
Pentachlorophenol	ND	1.00	ug/L							
Surrogate: 2,4,6-Tribromophenol	48.2		"	40.0		121	45.3-139			
Surrogate: 2-Fluorophenol	26.8		"	40.0		66.9	28.9-81.6			
Surrogate: Phenol-d5	18.8		"	40.0		47.0	8.43-107			
LCS (A407184-BS1)				Prepared 8	& Analyzed	: 15-Jul-14				
Pentachlorophenol	40.2	1.00	ug/L	40.0		101	44.6-120			
Surrogate: 2,4,6-Tribromophenol	46.5		"	40.0		116	60.1-131			
Surrogate: 2-Fluorophenol	26.9		"	40.0		67.4	30.7-98.1			
Surrogate: Phenol-d5	19.7		"	40.0		49.3	<i>22.7-123</i>			
Matrix Spike (A407184-MS1)	Sour	ce: 14071	46-01	Prepared 8	& Analyzed:	: 15-Jul-14				
Pentachlorophenol	162	2.00	ug/L	80.0	87.1	93.2	31-128			
Surrogate: 2,4,6-Tribromophenol	86.2		"	80.0		108	43-136			
Surrogate: 2-Fluorophenol	50.9		"	80.0		<i>63.7</i>	23.6-97.1			
Surrogate: Phenol-d5	37.1		"	80.0		46.4	12.8-122			
Matrix Spike Dup (A407184-MSD1)	Source: 1407146-01		Prepared 8	& Analyzed	: 15-Jul-14					
Pentachlorophenol	178	2.00	ug/L	80.0	87.1	114	31-128	9.77	22.7	
Surrogate: 2,4,6-Tribromophenol	82.7		n	80.0	-	103	43-136			
Surrogate: 2-Fluorophenol	<i>49.3</i>		"	80.0		61.6	23.6-97.1			
Surrogate: Phenol-d5	36.1		"	80.0		45.1	<i>12.8-122</i>			

 $\label{lem:all-Analysis} \mbox{ Parameter according to EPA approved methodology when available:}$

noma James/ Jeresa Coins

SW 846, Revised December, 1996; EPA 600/4-79-020, Revised March, 1983; Standard Methods.

Instrument calibration and quality control samples performed at or above frequency specified in analytical method.

Reviewed by:

Norma James and/or Teresa Coins Technical Director and/or QA Officer



11701 Interstate 30, Bldg. 1, Ste. 115 Little Rock, AR 72209 PHONE: 501-455-3233

FAX: 501-455-6118

CHAIN OF CUSTODY RECORD

CLIENT INFORM	IENT INFORMATION					Project De	escription	Turnaround Time	und Time Preservation Codes:										
Oxford Environn		v. Inc.				Arkwood Monthly Sampling 1 Day (1009			1 Day (100%)	1. Cool, 4 Degrees Centigrade					;	4. Thiosulfate for Dechlorination			
14348 Nieman Rd.							1					5. Hydrochloric Acid(HCl)							
Overland Park KS 66221								3 Day (25%)	3. Nitric Acid (HNO ₃), pH < 2					6. Sodium Hydroxide (NaOH), pH > 12					
							Telephone: 9		5 Day (Routine)	5		TES	T P	ARA	MET	TERS			Bottle Type Code
Attn: Jim Fleer						E	mail: jfleer@ox	fordeands.com	Preservative Code:	1									G = Glass; P = Plastic
									Bottle Type:	GA									V = Septum; A = Amber
Sampler(s) Signature James Sampler(s) Print				s E. Fleer			Pentachlorophenol (8270D)									Arkansas Analytical Work Order Number:			
Field	SAMPLE	COLLECTION			Number			SAMPLE		ach OD)									
Number	Date/s	Time/s	Grab	Comp	of	Sample Matrix	IDENT	IFICATION/ DESC	CRIPTION	Pent (827									1407146-
	7/9/14	17:50	Х		1.	Water	Mouth			Х									01
	719114		Х			Water				Х									02
·			· · ·			7.00.0				- -									
		 	 	 						ONS	SITEM	FASUE	REME	NTS BY	/ Oxfo	rd Envi	ronme	ental	
			 		 \									Н	T	erature		0%	
				1						i	Ner.	Marth		39	17.		202		
				 	1						onth			35	13.9		41		
	······································			 	-							V42C11						· <i>U</i>	
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			 	 	-									 					
4. Dalian dalian	(0)	D.A. Time	1)	L (6)		CAMPLE	CONDITION LIDON I	L	T (N. 1 A)			DE	BAADL	'C / CAI	ADI E	COMB	ENTE
1. Relinquished by)	Date/Time 7 10 2014	-	Z. Ke	Ceiveu	DY: (3)	gnature)	SAMPLE CONDITION UPON RECEIPT IN LAB					REMARKS / SAMPLE COMMENTS Flow Rate - 2.32						ENIS
April)	h				WF	2		1. CUSTODY SE		, IT									
9:30 VI		VIT			2. CONTAINERS		+1	es	No)			207							
			3. COC/LABELS	LABELS AGREE:YesNo			l i	O_3 Conc - $2.1(7)$											
3. Relinguished by: (Signature) Date/Time 4. Received		by lab:	(Signature)	4. RECEIVED OF			es	No.	O₃ Re	sidual	- 3,4	<u> </u>							
7-11-14, Supl		M	5. TEMPERATURE ON RECEIPT: 2°C			n -													
WYS)	11) \	Ł.		6. TEMPERATU	RE GUN ID:	TT-	#2_		L						
0935		$\overline{}$	Ju V	Tames FOR COMPLETION BY L.				LAB ONLY											

Arkwood, Inc. Site: Ozone Injection Pilot Study

	Varia	bles	Spring	PC	PCP		
Date	Water Inj	O3 Inj	Flow	Mouth	Weir		
12/8/05			5				
12/9/05	35	- "	5				
12/14/05	35	1lb/10 g	21	28			
12/15/05	35	1lb/10 g	30/27	29.3			
12/20/05	36	1lb/10 g	27	7.39	<5.10		
12/26/05	36	1lb/10 g	27	11.4	11.1		
1/2/06	36	1lb/10 g	21	42.4	35.1		
1/9/06	36	1lb/10 g	20	32.4	33		
1/16/06	36	1lb/10 g	27.5	32.3	<5.00		
1/23/06	36	1lb/10 g	34/32	15.9	<5.00		
1/30/06	36	1lb/10 g	41	34.3	<5.00		
2/6/06	36	1lb/10 g	38	<5.10	<5.00		
2/13/06	36	1lb/10 g	34	23.9	<5.00		
2/20/06	36	1lb/10 g	21	5.53	4.19J		
2/27/06	36	1lb/10 g	26	19.9	<5.00		
3/6/06	34	1-2lb/10 g	16	25.1	<5.00		
3/13/06	33	1-2lb/10 g	57	107	<5.00		
3/20/06	32	1-2lb/10 g	48	26.2	<5.00		
3/27/06	32	1-2lb/10 g	27	4.09J	<5.00		
4/3/06	34	2-3lb/10 g	24	11.3	<5.00		
4/10/06	33	2-3lb/10 g	16.4	39.3	<5.00		
4/17/06	34	2-3lb/10 g	22	7.94	7.82		
4/24/06	35	2-3lb/10 g	16	7.0	<5.00		
4/27/06	33	2-3lb/10 g	50	11.3	NΑ		
4/29/06	33	2-3lb/10 g	193	28.2	N <u>A</u>		
5/1/06	33	2-3lb/10 g	94	23.4	7.16		
5/8/06	33	2-3lb/10 g	59	52.3	23.3		
5/15/06	34	2-3lb/10 g	21.7	14.9	<5.00		
5/22/06	34	2-3lb/10 g	16	<5.00	<5.00		
5/30/06	34	2-3lb/10 g	16.7	5.64	<5.00		
6/7/06	0	0	3	253	<5.00		
6/12/06	0	0	2.19	LE	LE		
6/19/06	34	0	16.7	52.1	14.3		
6/26/06	34	0	16.7	74.7	<5.00		
7/5/06	35	0	21.7	9.8	<5.00		
7/17/06	34	0	16.7	21.9	4.01J		
8/7/06	34	0	16.7	23.6	18		
8/14/06	34	0	16.7	<5.00	5.22		
9/5-6/06	34	0	23	6.57	<5.10		
9/18/06 10/2/06	34	0	24	6.29	<5.00 <5.00		
10/2/06	34	2-3lb/10 g	24 41	16.8 39.6	<5.00		
10/16/06	34	5-6lb/10g	81	92.3	2.22J 19.4		
10/18/06	34	5-6lb/10g	27	118	<5.00		
11/7/06	35	2-4lb/10g	41	52.7	4.70J		
11/20/06	35	2-4lb/10g	24	57.4	<5.00		
11/30/06	35	5-6lb/10g	636	<50.0	<5.00		
12/4/06	35	5-6lb/10g	59	<54.3	<5.00		
12/6/06	35	5-6lb/10g	37	<52.6	<5.00		
12/18/06	35	2-3lb/10 g	21	24.1	<5.00		
1/8/07	35	2-3lb/10 g	21	16.7	<5.00		
1/22/07	35	2-3lb/10 g	79	34.6	<5.00		
2/5/07	35	2-3lb/10 g	27	25.9	<5.00		
2/19/07	35	2-3lb/10 g	47	19.6	<5.00		
3/5/07	35	2-3lb/10 g	27	<5.00	<5.00		
3/19/07	35	2-3lb/10 g	25	NA	NA		
4/9/07	35	2-3lb/10 g	23	<5.00	<5.00		
4/23/07	35	2-3lb/10 g	30	7.27	<5.00		
5/7/07	35	2-3lb/10 g	21	2.90J	<5.00		
5/21/07	35	2-3lb/10 g	20	4.36J	<5.00		
	35	2-3lb/10 g	20	<5.00	<5.00		
6/4/07		2 010 10 91		1 .0.00			
6/4/07 6/18/07	35	0	21	9.62	<5.00		

7/23/07	35	0	18	8.65	<5.00
8/6/07	0	0	1	191	9.19
9/10/07	35	0	23	217	26.4
9/24/07	35	0	18	16.2	19.4
10/10/07	35	2-3lb/10 g	18	5.63	1.15J
10/22/07	35	2-4lb/10g	18	1190	53.7
11/5/07	35	2-4lb/10g	18	209	7.93
11/19/07	35	2-4lb/10g	18	19.8	24.1
12/3/07	35	2-4lb/10g	18	20.1	<5.00
12/17/07	36	2-4lb/10g	32	87.4	1.20J
1/7/08	36	2-4lb/10g	23	<5.00	<5.00
1/21/08	36	2-4lb/10g	23	58	<5.00
2/4/08	36	2-4lb/10g	24	52	<5.00
2/18/08	35	2-4lb/10g	83	57	15
3/3/08	35	5-6lb/10g	580	<5.00	<5.00
3/17/08	35	5-6lb/10g	44	11	<5.00
4/7/08	35	5-6lb/10g	78	10	<5.00
4/12/08	35	5-6lb/10g	240	6.5	NA
4/13/08	35	5-6lb/10g	100	6.8	NA
4/14/08	35	5-6lb/10g	78	8.2	NA
5/10/08	36	5-6lb/10g	68	75	<5.00
5/27/08	0	0 0.07 109	18	189	<5.00
6/9/08	35	2-4lb/10g	30	77	<5.00
6/23/08	35	2-4lb/10g	580	5.6	<5.00
7/7/08	35	2-4lb/10g	80	194	189
7/10/08	35	5-6lb/10a	140	254	20
7/21/08	35	5-6lb/10g	42	477	<5.00
8/4/08	35	2-4lb/10g	22	108	14
8/18/08	35	2-4lb/10g	36	31	<5.00
9/1/08	35	2-4lb/10g	25	32	<5.00
9/22/08	35	2-4lb/10g	40	22	<5.00
10/6/08	35	2-4lb/10g	21	20	<5.00
10/20/08	33	2-4lb/10g	21	13	<5.00
11/3/08	35	2-4lb/10g	24	<5.00	<5.00
11/17/08	35	2-4lb/10g	30	28	<5.00
12/1/08	35	2-4lb/10g	24	12	<5.00
12/1/08	33	2-4lb/10g	24	<5.00	
1/5/09	35		32	7.3	<5.00
1	32	2-4lb/10g	27		<5.00
1/26/09 2/9/09	33	2-4lb/10g 2-4lb/10g	90	<5.00 <5.00	<5.00
					<5.00
2/23/09	33	2-4lb/10g	31	6	<5.00
3/9/09	34	2-4lb/10g	30	5.7	<5.00
3/23/09	33	2-4lb/10g	30	<5.00	<5.00
4/6/09	32	2-4lb/10g	38	5.8	<5.00
4/20/09	32	2-4lb/10g	243	8.5	<5.00
5/4/09	33	2-4lb/10g	343	8.2	8.7
5/18/09	33	2-4lb/10g	51	6.2	<5.00
6/8/09	35	2-4lb/10g	38	<5.00	<5.00 <5.00
6/29/08 7/20/09	33 32	2-4lb/10g 2-4lb/10g	25	9.1	<5.00
	32	2-4lb/10g 2-4lb/10g	23.7	39	<5.00
8/10/09 9/13/09	32	2-410/10g	23.7 22	31 8	<5.00
	_	0	104	21	<5.00 <5.00
10/12/09	32 32	0			
11/9/09 12/7/09	32	0	45	<50	<5.00
			28 42	8.2	<5.00
1/10/10 2/15/10	32	0		13	<5.00
-	32	0	87	11.1	<5.00
3/15/10	32	0	35	<5.00	<5.00
4/15/10 5/17/10	32	0	40	9.62	<5.00
5/17/10	32	0	180	11	<5.00
6/13/10	32	0	43	15	<5.00
7/8/10	32	0	33	66	<2
8/19/10	0-20	0	17	16.3	<5.00
9/21/10	34	0	33	28.2	<5.00
10/18/10 11/20/10	37	0	20	14.9	<10.00
12/16/10	37	0	21	4.89	<4.00
12/16/10		0	23.55	6.15	<5.00

_					
1/18/11	37	0	22.83	3.39	2.86
2/9/11	37	0	26.76	10.4	<10.0
3/17/11	37	0	49.03	14.2	<5.00
4/19/11	37	0	57.55	12.5	<5.00
5/2/11			310	11	
5/3/11			271	8.92	
5/4/11			156	10.8	
5/4/11			123	15.8_	
5/5/11			83	18	
5/9/11	37	0	33.91	43.8	<5.00
6/9/11	0	0	6.8	52.4	<5.00
7/18/11	0	0	0.575	18.6	<5.00
8/15/11	0	0	1.004	38.9	<5.00
9/13/11	0	0	0.132	<5.00	<5.00
10/18/11		0	23.71	52.4	<5.00
<u>11/16/11</u>		0	29.64	30.6	<5.00
12/19/11		0	60.25	11.5	<5.00
1/19/12	40_	0	31.82	<5.00	<5.00
2/14/12	40	0	40.38	6.68	<5.00
3/29/12	40	0	50.81	7.95	<5.00
4/18/12	40	0	22.54	20	<5.00
5/23/12	40	0	18.18	10.9	<5.00
6/11/12	40	0	17.87	7.13	<5.15
7/30/12	40	0	15.1	5.68	<5.00
8/24/12 9/24/12	40	0	13.75 0.4	<5.00	<5.00 <5.00
10/15/12	0	0	4.48	73.2 26.7	<5.00
11/19/12	0	0	0.73	28.8	<5.00
12/28/12	0	0	1.22	25.6	<1.00
1/16/13	0	0	3.72	40.5	2.12
2/24/13	0	0	4.1	45.3	<1.00
3/13/13	0	0	23	18.6	<1.00
4/22/13	0	0	21.62	26.7	<1.00
5/16/13	0	0	14.33	18.3	<1.00
6/21/13	0	0	1.44	22.3	<1.00
7/23/13	0	0	0.934	27.1	<1.00
8/23/13	0	0	5.27	65.4	<1.00
9/18/13	0	0	1.43	54.6	<1.00
10/16/13	0	0	1.63	66.1	<1.00
11/13/13	0	0	2.68	115	1.71
12/18/13	0	0	43.77	33	1.28
1/13/14	0	0	48.39	45.8	2.55
2/17/14	00	0	6.1	75.4	<1.00
3/17/14	0	0	151.5	12.8	2.47
4/23/14	0	0	11.26	49.4	<1.00
5/19/14	0	0	56.62	73.9	<1.00
6/4/14	0	0	2.45	65.7	<1.00
7/9/14	0	0	2.32	87.1	<1.00
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6.41 13.08 241.1 12 6.71 14.26 256.3 7.63 14.02 190.7 12 6.72 14.36 214.3 12 6.52 14.66 226.8 12 238 6.69 18.26 12 249.7 7.76 19.74 12 6.92 18.33 238.2 12 7.72 18.85 196.5 12 8.03 15.9 204.7 12 7.25 11.72 236.4 12 6.65 13.99 25.92* 12 measured as mg/L not as % DO 7.13 12.36 236.7 12 6.47 13.61 259.6 12 7.1 13.4 121.6 12 Very heavy flow rate 218.7 6.36 14.88 12 15.97 219.1 12 7.34 17.49 205.1 12 6.68 17.41 202

Weir Parameters

7.07

7.85

7.91

Temp 17.57

16.08

15.4

12.46

DO % Distance

12

15

12

12

341.9

216.4

209.1

247.6

NOTES: Flow rates in gallons per minute (gpm)

O3 injection rates in pounds per 10 gallons PCP concentrations in parts per billion (ppb)

NA - not analyzed

LE - Lab Error - samples not usable